US Army Corps
of Engineers
Rock Island District

Defense Environmental Restoration Program
For
Formerly Used Defense Sites

Ordnance and Explosives

Archives Search Report

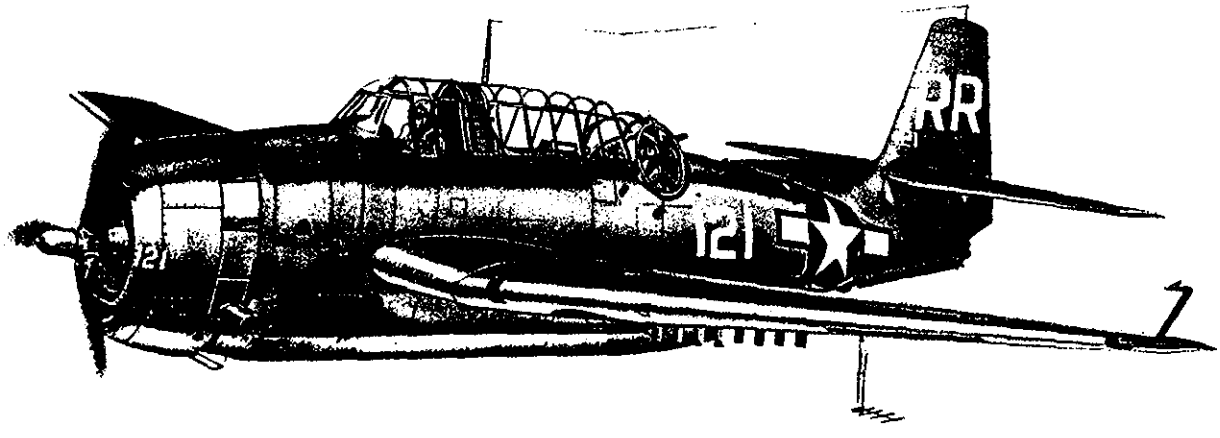
CONCLUSIONS AND RECOMMENDATIONS

for the former

Naval Ordnance Facility Bald Porcupine Island

Bar Harbor, Maine
Project Number D01ME043901

December 1996



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DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
FOR
FORMERLY USED DEFENSE SITES

CONCLUSIONS AND RECOMMENDATIONS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE
PROJECT NUMBER D01ME043901

December 1996

Prepared For

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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE
PROJECT NUMBER D01ME043901

ACKNOWLEDGMENTS

The following persons provided support as indicated.

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ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE
PROJECT NUMBER D01ME043901

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are provided by the Archives Search Report Team. These recommendations may not be the actions taken to remediate the site.

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ARCHIVES SEARCH REPORT
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NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE
PROJECT NUMBER D01ME043901

1. INTRODUCTION.

a. Subject and Purpose

(1) This report presents the conclusions and recommendations of an historical records search and site inspection for ordnance and explosives (OE) presence located at Bald Porcupine Island near Bar Harbor, Maine.

(2) The purpose of this investigation was to characterize the site for potential OE contamination utilizing available historical records, interviews, and on-site visual inspection results.

b. Scope

(1) The investigation covers the entire 30 acres of the island (see plate 1). The historical section includes information on the entire period of War Department control, from 1943 to 1947.

(2) The conclusions and recommendations presented in this report were made from available records and the visual site inspection. The conclusions, including ordnance risk assessments, were based on direct or documented evidence and reasonably inferred evidence from the investigation.

2. CONCLUSIONS.

a. Summary of Conclusions

Table 2-1 has been provided to summarize conclusions made on Bald Porcupine Island.

TABLE 2-1
SUMMARY OF CONCLUSIONS

Area	Former Usage	Present & Future Usage	Size, Acres	ORDNANCE PRESENCE			
				Confirmed Ordnance	Potential Ordnance	Uncontaminated	RAC
A	Torpedo impact area	National Park	4	yes	-	-	3
B	Artillery impact area	National Park	26	-	yes	-	3
C	Water torpedo range	Water	674	-	yes	-	3
D	Water arty range	Water	70	-	yes	-	3

b. Historical Site Summary

(1) The island's owner and Navy signed a lease in July of 1943. Although the precise time period could not be determined, the Navy used the island as a torpedo and artillery target during the latter part of WWII, most likely in 1944. The owner signed a special release in July of 1947, officially ending military control of the island.

(2) The Navy used the sheer cliffs on the southeast side as a target for what was likely experimental aircraft torpedo testing with HE warheads. Numerous local residents observed the firings, and there is a color photo of an explosion on the island. Residents also found torpedo fragments, as did the ASR team. There have been no reports of unexpended torpedoes either on land or in any of the water around Bald Porcupine Island.

(3) Sailors from the Bar Harbor Section Base set up what was most likely a 40mm gun on the town pier and fired HE rounds at the island. This was witnessed by local children who went to the island in between firings to recover metallic fragments. One of these children found what he thought was a 40mm round on the shore next to the firing point. No one has reported finding UXO on the island, and no scrap has been reported anywhere since site closure. A National Park Service (NPS) team spent a week surveying the island for plants and animals in 1993 without observing any UXO or metal fragments from artillery practice.

c. Site Eligibility

Current ownership of Bald Porcupine Island by the National Park Service (NPS) was verified through Town of Gouldsboro real estate records. The ASR team confirmed the Navy's WWII use as described in the INPR.

d. Visual Site Inspection

(1) The site inspection for Bald Porcupine Island was conducted on 17 October 1996, with the NPS providing an experienced biologist to serve as site escort. The escort took the team to the rocky beach where he had previously found what he thought were torpedo fragments and pointed out some additional fragments. The only fragments were found in area A.

(2) The biologist and the ASR team searched the rest of the island, which is primarily forest. There were no fragments or anything of a military origin observed in area B.

(3) Areas C and D are water. The team went through them by boat but did not actually perform a search.

e. Confirmed Ordnance Areas

Confirmed ordnance contamination is based on verifiable historical evidence, direct witness, or reliable indirect witness of ordnance items since site closure. **Area A is considered confirmed** based on interviews, a photograph, historical records, and fragments found by the ASR team. No UXO has ever been reported in this area, only fragments.

f. Potential Ordnance Areas

(1) Potential ordnance contamination is based on a lack of confirmed ordnance. Potential contamination can also be inferred from records or indirect witness. **Areas B, C, and D are considered potential** because of the numerous local residents who observed artillery practice and torpedo firings during WWII.

g. Uncontaminated Ordnance Subsites

Uncontaminated ordnance contamination is based on a lack of confirmed or potential ordnance contamination. There are no uncontaminated subsites on Bald Porcupine Island.

h. Other Environmental Hazards

None.

3. RECOMMENDATIONS

a. Summary of Recommendations

Table 3-1 provides a summary of the site recommendations. Explanations are included in subsequent paragraphs.

TABLE 3-1
SUMMARY OF RECOMMENDATIONS

			OE Actions			HTRW Actions	BD/DR Actions
Area	Former Usage	Size, Acres	No Further Action	Implement Interim Removal	Perform EE/CA	Perform SI	Perform SI
A	Torpedo impact area	4	yes	-	-	-	-
B	Artillery impact area	26	-	-	yes	-	-
C	Water torpedo range	674	yes	-	-	-	-
D	Water arty range	70	yes	-	-	-	-

b. Ordnance and Explosives Actions

(1) Interim Removal Actions (IRA)

None recommended.

(2) Engineering Evaluation/Cost Analysis (EE/CA)

(a) An EE/CA is recommended for area B.

(b) Additional issues and concerns for EE/CA actions are provided in Table 3-2.

TABLE 3-2
EE/CA ISSUES AND CONCERNS

Area	Size, Acres	Work Item	Issues and Concerns
		Field Work	
B	26	General	Endangered species and a potential archeological site are present. Island is accessible only by boat in calm seas.
B	26	Perform OE Sweeps	Fragments will give numerous readings on metal detectors. Live OE, if any, is below the surface. Steep terrain exists, and brush and ground cover limit ground visibility.

(3) No Further Action (NOFA)

(a) NOFA is recommended for area A. Although this area was used as a target for HE torpedoes, no UXO has ever been reported and there is no evidence that anything remains in this area other than fragments.

(b) NOFA is also recommended for areas C and D. Current technology limits the effectiveness of underwater searches, and there is no firm evidence that UXO is present.

d. Other Environmental Remediation Actions

None recommended.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

ATTACHMENT A

RISK ASSESSMENT FOR AREA A

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVES (OE) SITES

Site Name	Bald Porcupine Island	Rater's Name	Ronald Plante
Site Location	Bar Harbor, Maine	Phone No.	(309) 794-6006
Project #	D01ME043901	Organization	CENCR-ED-DO
Date Completed	19 December 1996	Area	A Torpedo Impact Area
Date Revised		RAC Score	3

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHNC to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHNC video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Small Arms, Expended	0
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OE? Although HE torpedoes were fired here, only fragments have been found. There is no evidence that any live ordnance remains in this area.

A

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	0

What evidence do you have regarding pyrotechnics? None

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	0

What evidence do you have regarding bulk explosives? None

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	0

What evidence do you have regarding propellants? None

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5

Chemical and Radiological (Select the largest single value) 0

What evidence do you have of chemical/radiological OE? None

==========

TOTAL HAZARD SEVERITY VALUE 10
(Sum of Largest Values for A through E--Maximum of 61).
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	**II**	**10 to 20**
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OE Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OE? Local residents stated that they cleaned up the fragments in between firings. A Park Service biologist has found only fragments, as did the ASR team. UXO, if any is sub-surface, though the rocky cliffs and shore make this unlikely.

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	(4)
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 4

What are the nearest inhabited structures? The shoreline of Mount Desert Island is about 2400 feet away, and there are residences, roads, and businesses.

C. Number of buildings within a 2 mile radius measured from the OE hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Within a two mile radius is all of downtown Bar Harbor and and the town's residential area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. The entire town of Bar Harbor is within a two mile radius. This includes residences, schools, businesses, hotels, a hospital, restaurants, offices, and warehouses.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	(1)
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 1

Describe the site accessibility. This island is not easy to get on. Although it is close to town, the small rocky beach makes access very difficult. Only Park Service personnel normally go to this site.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)

Site Dynamics (Select largest value) 0

Describe the site dynamics. The site will remain an undeveloped National Park.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 17

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	**C**	**15 to 20**
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	(3)	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-LA--commercial 205-895-1582 or DSN 645-1582.

RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.

(RAC 3) **Complete INPR - Recommend further action by CEHNC.**

RAC 4 Complete INPR - Recommend further action by CEHNC.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

Area A was clearly used for HE torpedo testing during WWII. Local residents watched the explosions, and one took a color photograph which was provided to the ASR team. Some of the residents used to visit the island to recover metal fragments, and the ASR team also found fragments. No live items have ever been reported. A Navy salvage crew did a water clearance in early 1946 without finding any torpedoes, and local fisherman have not reported any UXO in the surrounding waters.

This 4-acre area is solid rock and rocky beach. No one has ever seen any UXO. Because it was used for experimental work, it is likely that the Navy immediately recovered any duds. There is no evidence to indicate that any UXO exists in this area. The steep cliffs and rocky shores make UXO presence extremely unlikely and NOFA is recommended.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

ATTACHMENT B

RISK ASSESSMENT FOR AREA B

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVES (OE) SITES

Site Name	Bald Porcupine Island	Rater's Name	Ronald Plante
Site Location	Bar Harbor, Maine	Phone No.	(309) 794-6006
Project #	D01ME043901	Organization	CENCR-ED-DO
Date Completed	9 December 1996	Area	B Arty Impact Area
Date Revised		RAC	3

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHNC to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHNC video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	(10)
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Small Arms, Expended	0
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OE? Local residents observed 40mm firing at the island from the town pier and later found fragments. No UXO has ever been reported and no fragments have been reported since site closure. The ASR team did not find anything.

B

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	0

What evidence do you have regarding pyrotechnics? None

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	0

What evidence do you have regarding bulk explosives? None

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	0

What evidence do you have regarding propellants? None

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	0

What evidence do you have of chemical/radiological OE? None

TOTAL HAZARD SEVERITY VALUE 10
(Sum of Largest Values for A through E--Maximum of 61).
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OE Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OE? Local residents stated that they cleaned up the fragments in between firings. A 1993 Park Service plant and animal survey of the island did not reveal any UXO or fragments on the surface. The ASR team did not observe any UXO or fragments.

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	(4)
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 4

What are the nearest inhabited structures? The shoreline of Mount Desert Island is about 2400 feet away, and there are residences, roads, and businesses.

C. Number of buildings within a 2 mile radius measured from the OE hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Within a two mile radius is all of downtown Bar Harbor and and the town's residential area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. The entire town of Bar Harbor is within a two mile radius. This includes residences, schools, businesses, hotels, a hospital, restaurants, offices, and warehouses.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	(1)
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 1

Describe the site accessibility. This island is not easy to get on. Although it is close to town, the small rocky beach makes access very difficult. Only Park Service personnel normally go to this site.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)

Site Dynamics (Select largest value) 0

Describe the site dynamics. The site will remain an undeveloped National Park.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 17

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	**C**	**15 to 20**
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	**II**	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-LA--commercial 205-895-1582 or DSN 645-1582.

RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.

RAC 3 Complete INPR - Recommend further action by CEHNC.

RAC 4 Complete INPR - Recommend further action by CEHNC.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

This area was used for Navy 40mm practice during WWII. Local residents observed the firing and collected fragments in between firings. No UXO has ever been reported and no fragments have been reported since site closure. The ASR team did not observe any fragments, and a 1993 Park Service plant and animal survey did not find any fragments or UXO. Some of the area is rocky shoreline, but it is primarily steep forest. There is about 18" of plant material and soil above bedrock.

The RAC score was affected by the island's proximity to Bar Harbor's downtown and residential area. This distance, while short, is over water. Frequently rough seas and the limited rocky shoreline make access very difficult and sometimes impossible. Generally, the only visitors are Park Service personnel.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

ATTACHMENT C

RISK ASSESSMENT FOR AREA C

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVES (OE) SITES

Site Name	Bald Porcupine Island	Rater's Name	Ronald Plante
Site Location	Bar Harbor, Maine	Phone No.	(309) 794-6006
Project #	D01ME043901	Organization	CENCR-ED-DO
Date Completed	6 January 1997	Area	C Water torpedo range
Date Revised		RAC Score	3

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHNC to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHNC video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	(10)
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Small Arms, Expended	0
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OE? Although HE torpedoes were dropped in this area, only fragments have been found, all near the island. No torpedoes have been reported in this area.

C

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	0

What evidence do you have regarding pyrotechnics? None

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	0

What evidence do you have regarding bulk explosives? None

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	0

What evidence do you have regarding propellants? None

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5

Chemical and Radiological (Select the largest single value) 0

What evidence do you have of chemical/radiological OE? None

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TOTAL HAZARD SEVERITY VALUE 10

(Sum of Largest Values for A through E--Maximum of 61).

Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	**II**	**10 to 20**
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OE Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OE? This area is entirely water. If any OE is present, it is at the bottom of the bay.

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	(4)
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 4

What are the nearest inhabited structures? The shoreline of Mount Desert Island is about 2400 feet away, and there are residences, roads, and businesses.

C. Number of buildings within a 2 mile radius measured from the OE hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Within a two mile radius is all of downtown Bar Harbor and and the town's residential area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. The entire town of Bar Harbor is within a two mile radius. This includes residences, schools, businesses, hotels, a hospital, restaurants, offices, and warehouses.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	(1)
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 1

Describe the site accessibility. This area is entirely water. The only place it touches land is at area A, the torpedo impact area.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)

Site Dynamics (Select largest value) 0

Describe the site dynamics. No changes anticipated.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 17

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	**C**	**15 to 20**
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	(3)	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-LA--commercial 205-895-1582 or DSN 645-1582.

RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.

(RAC 3) **Complete INPR - Recommend further action by CEHNC.**

RAC 4 Complete INPR - Recommend further action by CEHNC.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

Area C was clearly used for HE torpedo testing during WWII. Local residents watched the explosions, and one took a color photograph which was provided to the ASR team. One resident reported finding fragments in the water, but no live items have ever been reported. A Navy salvage crew did a a water clearance in early 1946 without finding any torpedoes, and local fishermen have not reported any UXO in the waters.

Although no UXO has been found or reported, there is a possibility that live HE torpedoes are in this area. Even though the Navy probably made every effort to recover dud/errant experimental torpedoes, they would have been limited by the technology available at that time.

Because there is no firm evidence of contamination, NOFA is recommended at this time. This area is not eligible under current DERP-FUDS policy.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

ATTACHMENT D

RISK ASSESSMENT FOR AREA D

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVES (OE) SITES

Site Name	Bald Porcupine Island	Rater's Name	Ronald Plante
Site Location	Bar Harbor, Maine	Phone No.	(309) 794-6006
Project #	D01ME043901	Organization	CENCR-ED-DO
Date Completed	6 January 1997	Area	C Water arty range
Date Revised		RAC	3

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHNC to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHNC video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	(10)
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Small Arms, Expended	0
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OE? Local residents observed 40mm firing at the island from the town pier. During WWII, one child reported finding what he thought was a 40mm round washed up on the shore. Nothing has been found in the water since site closure.

D

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing *White Phosphorous or other* Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	0

What evidence do you have regarding pyrotechnics? None

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	0

What evidence do you have regarding bulk explosives? None

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	0

What evidence do you have regarding propellants? None

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5

Chemical and Radiological (Select the largest single value) 0

What evidence do you have of chemical/radiological OE? None

==========

TOTAL HAZARD SEVERITY VALUE 10
(Sum of Largest Values for A through E--Maximum of 61).
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	**II**	**10 to 20**
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OE Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OE? This area is entirely water. If any OE is present, it is at the bottom of the bay.

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 5

What are the nearest inhabited structures? The western tip of this area is a public pier, and residences, roads, and businesses are less than 200 feet from this pier.

C. Number of buildings within a 2 mile radius measured from the OE hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Within a two mile radius is all of downtown Bar Harbor and and the town's residential area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. The entire town of Bar Harbor is within a two mile radius. This includes residences, schools, businesses, hotels, a hospital, restaurants, offices, and warehouses.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	(1)
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 1

Describe the site accessibility. This area is entirely water.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)

Site Dynamics (Select largest value) 0

Describe the site dynamics. No changes anticipated.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 18

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	**C**	**15 to 20**
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	**OCCASIONAL C**	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-LA--commercial 205-895-1582 or DSN 645-1582.

RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.

RAC 3 Complete INPR - Recommend further action by CEHNC.

RAC 4 Complete INPR - Recommend further action by CEHNC.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

This area was used for Navy 40mm practice during WWII. Local residents observed the firing and collected fragments on the island. One child reported finding what he thought was a 40mm round washed up on the shore during WWII. No other items have been reported in this area, either during WWII or since site closure.

Although no UXO has been reported since site closure, there is a possibility that live 40mm rounds may be present in this area on the floor of the bay. It is unlikely that the Navy made an effort to recover duds.

Because there is no evidence of present-day contamination, however, NOFA is recommended at this time. This area is not eligible under current DERP-FUDS policy.

ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

ATTACHMENT E

RISK ASSESSMENT FOR ENTIRE SITE

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVES (OE) SITES

Site Name	Bald Porcupine Island	Rater's Name	Ronald Plante
Site Location	Bar Harbor, Maine	Phone No.	(309) 794-6006
Project #	D01ME043901	Organization	CENCR-ED-DO
Date Completed	6 January 1997	Area	E Entire Site
Date Revised		RAC Score	3

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHNC to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHNC video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	(10)
Bombs, Explosive	(10)
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Small Arms, Expended	0
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OE? Local residents observed 40mm firing and torpedo testing and found fragments of both torpedoes and projectiles. During WWII, one child found what he thought was a 40mm round. No UXO has been reported anywhere since site closure.

E

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	0

What evidence do you have regarding pyrotechnics? None

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	0

What evidence do you have regarding bulk explosives? None

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	0

What evidence do you have regarding propellants? None

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	0

What evidence do you have of chemical/radiological OE? None

==========

TOTAL HAZARD SEVERITY VALUE 10
(Sum of Largest Values for A through E--Maximum of 61).
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	**II**	**10 to 20**
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OE Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OE? Local residents stated that they cleaned up the fragments in between firings. NPS biologists have found in area A, but nothing in area B. Remaining UXO, if any, is likely below the ground or on the floor of the bay.

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 4

What are the nearest inhabited structures? The western tip of area D is about 200 feet from downtown Bar harbor, which has residences, roads, and businesses.

C. Number of buildings within a 2 mile radius measured from the OE hazard area, not the installation boundary.

	VALUE
26 and over	(5)
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 5

Narrative Within a two mile radius is all of downtown Bar Harbor and and the town's residential area.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. The entire town of Bar Harbor is within a two mile radius. This includes residences, schools, businesses, hotels, a hospital, restaurants, offices, and warehouses.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	(1)
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) 1

Describe the site accessibility. Gaining access to the island is not easy due to the small, rocky beach. Only Park Service personnel normally go to Bald Porcupine Island.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)

Site Dynamics (Select largest value) 0

Describe the site dynamics. The island will remain an undeveloped National Park, and no changes are planned in the two water areas.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 18

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	**15 to 20**
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHNC - Immediately call CEHNC-OE-LA--commercial 205-895-1582 or DSN 645-1582.

RAC 2 High priority on completion of INPR - Recommend further action by CEHNC.

RAC 3 Complete INPR - Recommend further action by CEHNC.

RAC 4 Complete INPR - Recommend further action by CEHNC.

RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHNC.

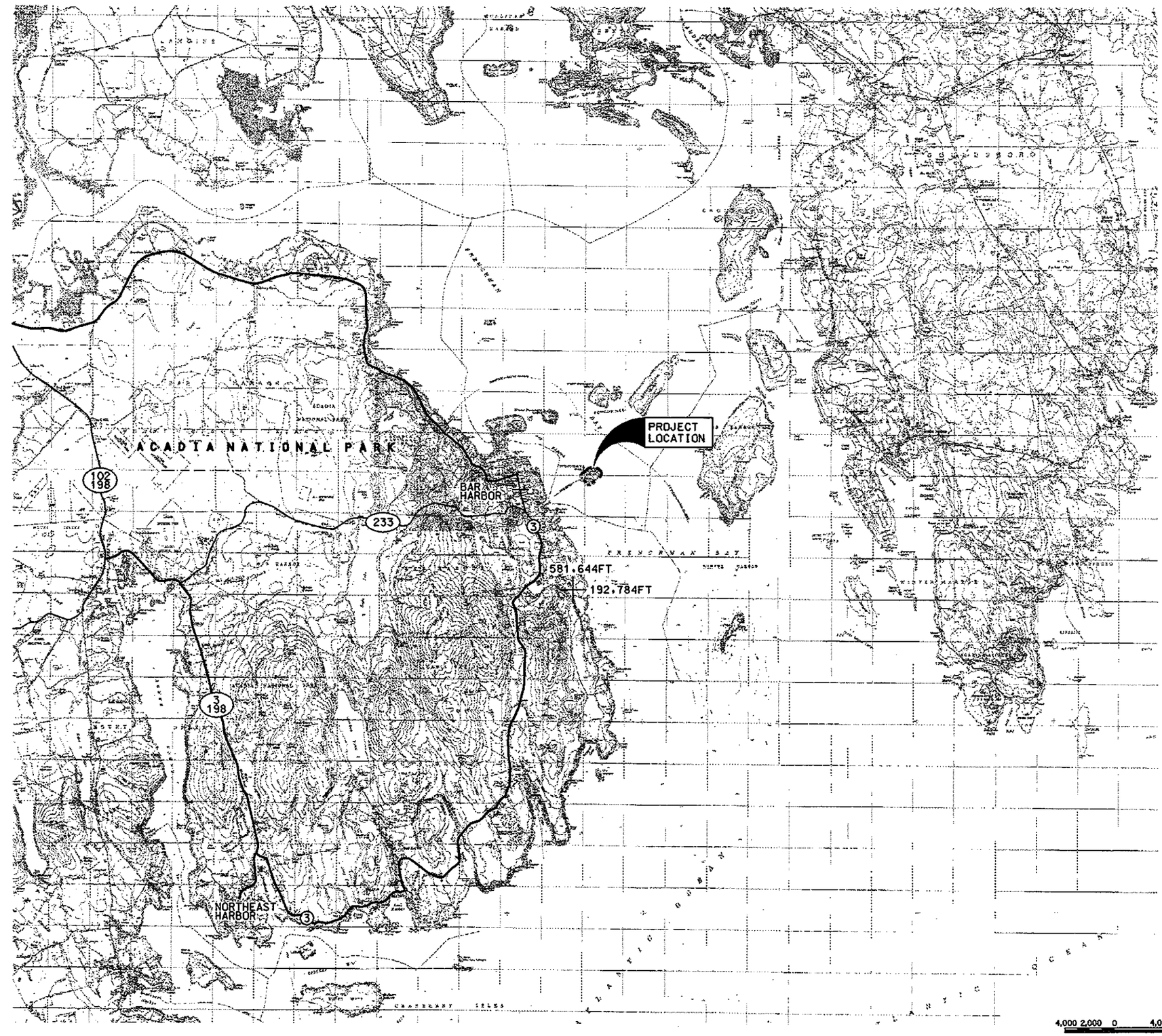
Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

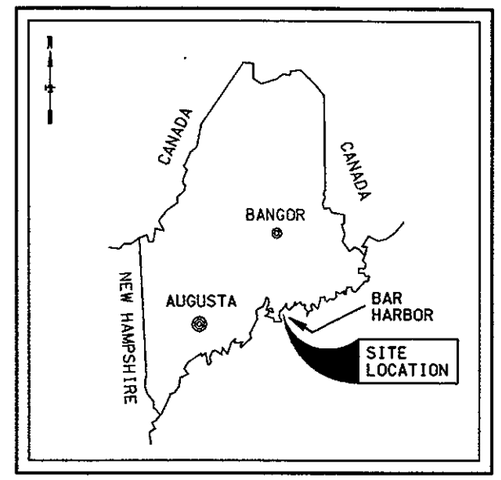
This site was used for Navy 40mm practice firing and torpedo testing during WWII. Local residents observed the firings and collected fragments in between firings. One child found what he thought was a 40mm round washed up on the shore during WWII, but no UXO has been reported since site closure. Residents collected fragments in area B in between firings, but none have been reported since site closure. Torpedo fragments have been found in area A, including some by the ASR team.

The RAC score was affected by the site's proximity to the Bar Harbor downtown and residential area. This distance, while short, is over water. Frequently rough seas and the limited rocky shoreline make access very difficult and often impossible. Generally, the only visitors to Bald Porcupine Island are Park Service personnel.

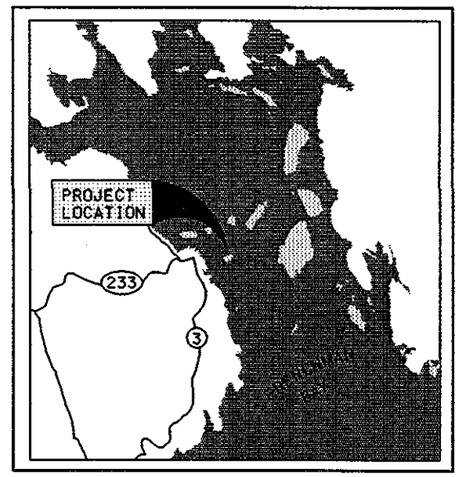
ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE PROJECT NUMBER D01ME043901

REPORT PLATES





STATE MAP OF MAINE



VICINITY MAP

LEGEND:

- SITE BOUNDARY
- STATE/LOCAL ROADS
- STATE PLANE COORDINATES

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: R.G.PLANTE	NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE
Drawn by: T.GEERLINGS	
Checked by: J.D.RUSSELL	SITE MAP
Reviewed by: D.J.HOLMES	Scale: / Date: / Drawing Code: / Sheet reference numbers: / Project Number: D01ME043901
Approved by:	PLATE 1

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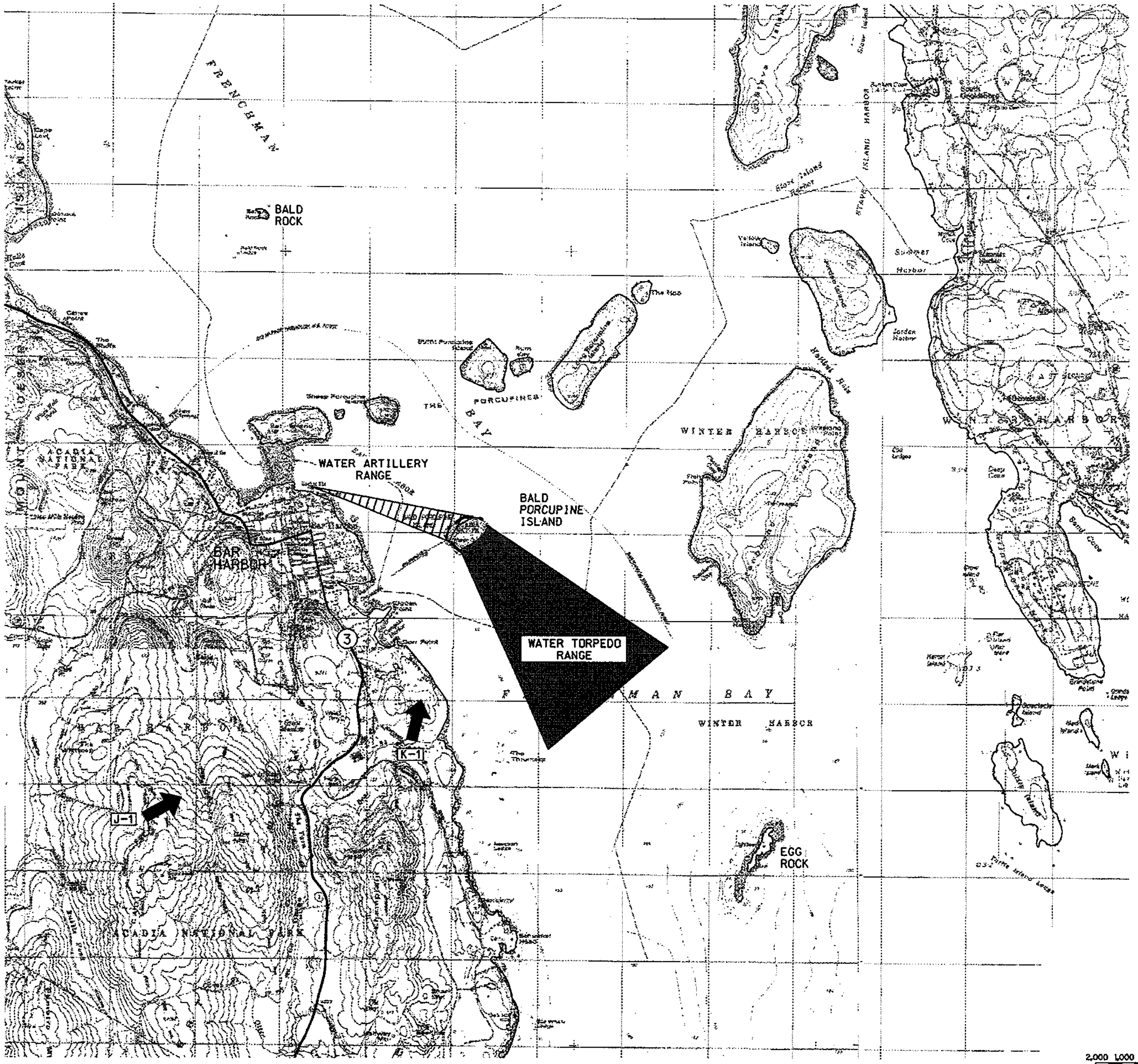

NOTES:

1. WATER TORPEDO RANGE DETERMINED FROM DOCUMENTS I-5,6,7, AND 8.
2. WATER ARTILLERY RANGE DETERMINED FROM DOCUMENTS I-4,5,7, AND 8.

LEGEND:

- WATER TORPEDO RANGE
- WATER ARTILLERY RANGE
- PHOTO LOCATION AND DIRECTION
- SITE BOUNDARY
- STATE/LOCAL ROADS

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

US Army Corps of Engineers Rock Island District

NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE

FACILITY LAYOUT
CIRCA 1944

Designed by: R.G.PLANTE
Drawn by: T.GEERLINGS
Checked by: J.D.RUSSELL
Reviewed by: D.J.HOLMES
Approved by:

Scale:
Date:
Drawing Code:
Sheet reference number:
Project Number: D01ME043901

PLATE 2

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OE EVALUATION			
AREA	FORMER USAGE	OE POTENTIAL	ACREAGE
A	TORPEDO IMPACT AREA	CONFIRMED	*4
B	ARTILLERY IMPACT AREA	POTENTIAL	*26
C	WATER TORPEDO RANGE	POTENTIAL	*674
D	WATER ARTILLERY RANGE	POTENTIAL	*70

*ACREAGE IS APPROXIMATE

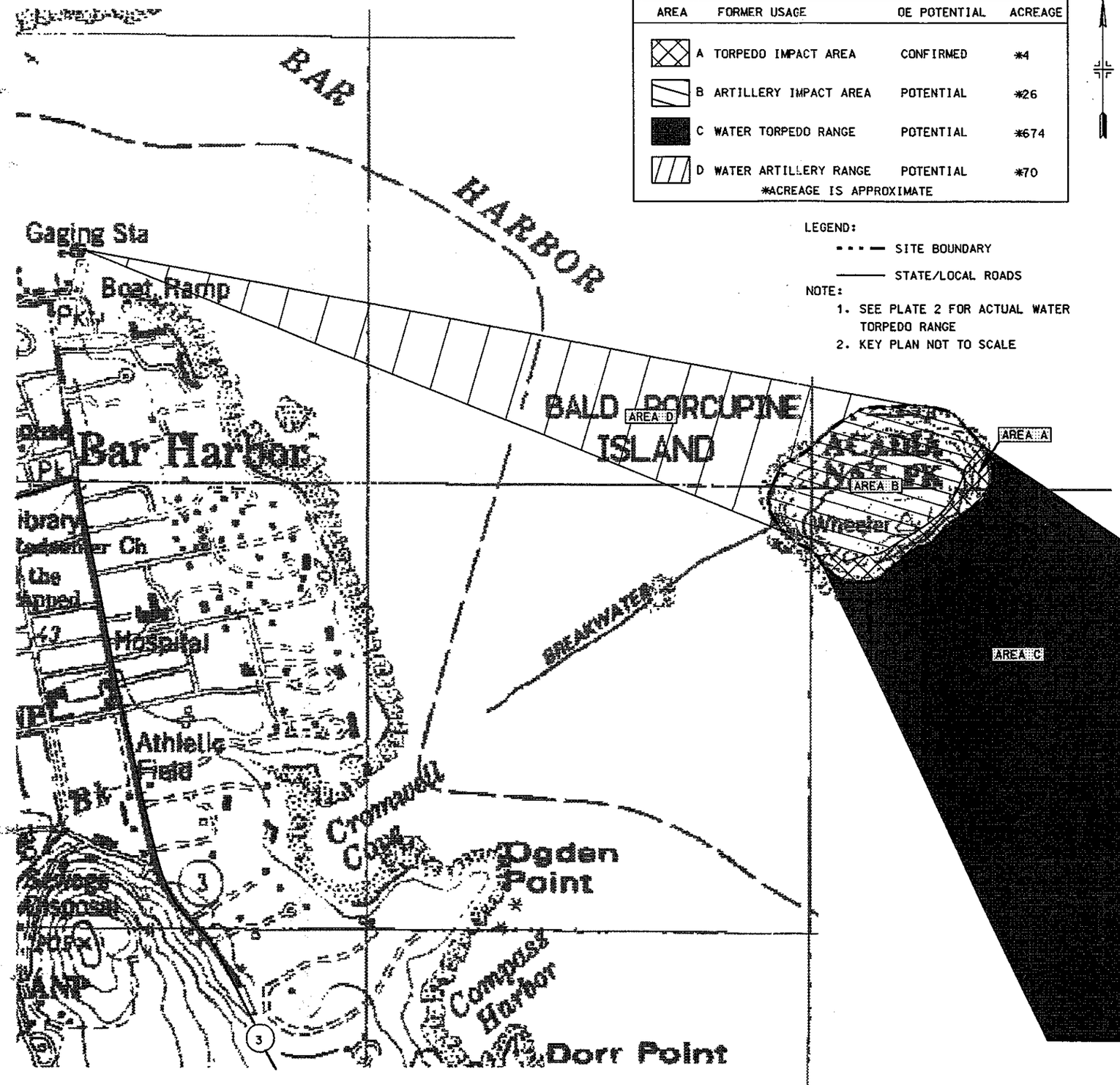
LEGEND:

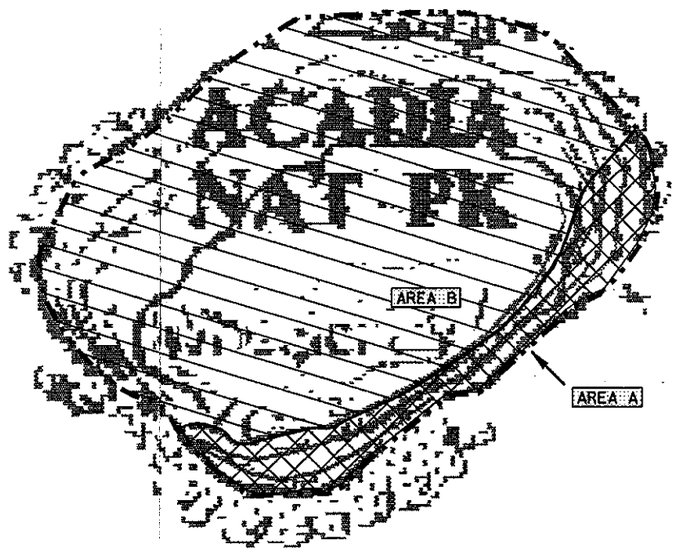
- - - - SITE BOUNDARY

——— STATE/LOCAL ROADS

NOTE:

1. SEE PLATE 2 FOR ACTUAL WATER TORPEDO RANGE
2. KEY PLAN NOT TO SCALE





KEY PLAN
BALD PORCUPINE ISLAND

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

NAVAL ORDNANCE FACILITY
BALD PORCUPINE ISLAND
BAR HARBOR, MAINE

OE PROJECT AREAS
A, B, C, AND D

Designed by: R.G.PLANTE	Scale:	Sheet reference number:	Project Number: D01ME043901
Drawn by: T.GEERLINGS	Date:		PLATE 3
Checked by: J.D.RUSSELL	Drawing Code:		
Reviewed by: D.J.HOLMES			
Approved by:			

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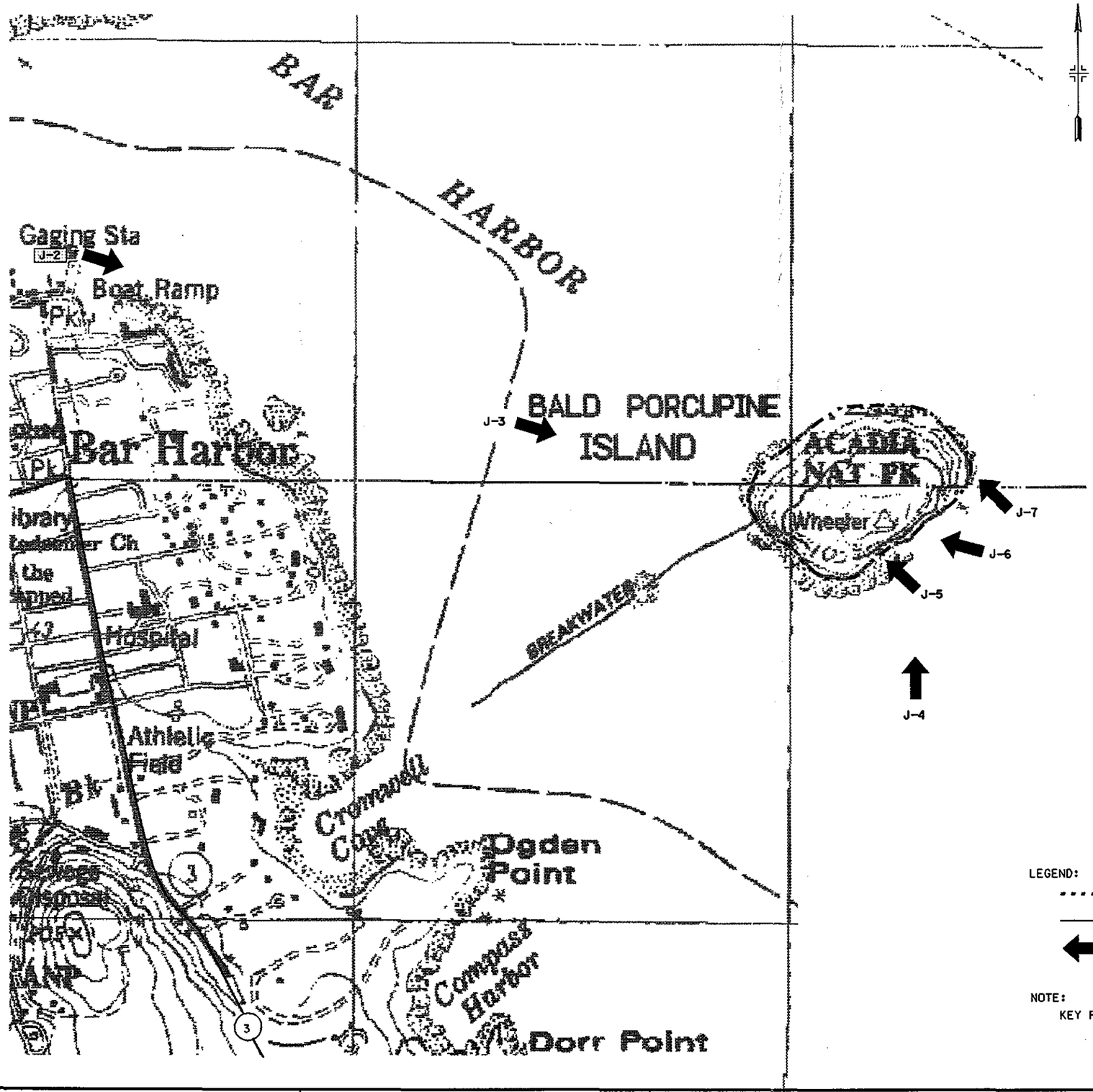

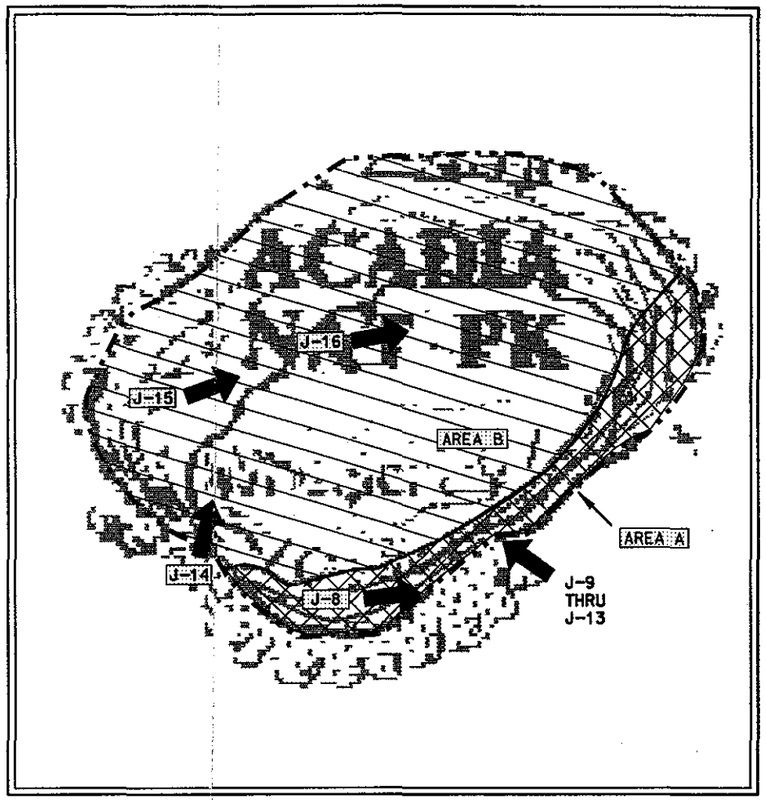

KEY PLAN
BALD PORCUPINE ISLAND

LEGEND:

- SITE BOUNDARY
- STATE/LOCAL ROADS
- PHOTO LOCATION AND DIRECTION

NOTE:
KEY PLAN NOT TO SCALE

400 200 0 400FT 800FT

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: R.G.PLANTE	NAVAL ORDNANCE FACILITY BALD PORCUPINE ISLAND BAR HARBOR, MAINE
Drawn by: T.GEERLINGS	
Checked by: J.D.RUSSELL	PHOTO LOCATIONS
Reviewed by: D.J.HOLMES	Scale:
Approved by:	Date:
	Drawing Code:
	Sheet reference number:
	Project Number: D01ME043901
	PLATE 4

20-DEC-1996 08:28
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